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EXAMINER	
HOLLWEG, THOMAS A	

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2879	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,321	YOUNG, NIGEL D	
	Examiner	Art Unit	
	Thomas A. Hollweg	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16,17,20 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,16,17,20 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 May 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Amendment

1. Applicant's Amendment of June 29, 2009, is acknowledged. No claims are added or canceled. Claims 1-14, 16, 17, 20 and 21 are currently pending.

2. It is noted that the objections to claim 21 were not addressed in either Applicant's Amendment or Remarks.

3. Applicant's arguments regarding both the 35 U.S.C. § 112, first and second paragraph rejections of claims 20 and 21 has been carefully considered, and is found to be persuasive. Therefore, both the 35 U.S.C. § 112, first and second paragraph rejections of claims 20 and 21 have been withdrawn. However, the explanations given by applicant on pages 9 and 10 of the Remarks give rise to a new understanding of the claim terms. This new understanding of claim terms gives rise to an inconsistency in the use of certain claim terms. This inconsistency is explained in the last section of the claim objections below.

Drawings

4. The objections to the drawings are maintained. The Replacement Sheets of Drawings for sheet 3/6 and 6/6 are not entered.

5. Several objections now have been made of the drawings and each set of Replacement Sheets submitted have only served to increase the number of errors in the drawings rather than correct the specific errors pointed out in the objections. Thus far, no Replacement Sheets have been accepted or entered.

6. A close reading of Applicant's specification and analysis of the drawings reveal that that applicant's figures show five recesses in the silicon dioxide layer 15, shown in at least figures 4, 5D and 5E. In the original figure 4, the second and fourth of these recesses are labeled 18-1 and 18-2, respectively. These are described in the specification, page 7, lines 15-18. Contact region 19-1 is in recess 18-1, and contact region 19-2 is in recess 18-2. The LED recesses are unlabeled in figure 4.

7. Figures 5D and 5E show the same five recesses labeled 21-25, first described in the specification, page 8, lines 24-26. The devices LEDs 1, 2 and 3 are formed in recesses 21, 23 and 25, respectively, page 9, line 16. Contact regions 19-1 and 19-2 are formed in recesses 22 and 24, respectively, page 9, line 17 to page 10, line 25. (It is noted that recess 18-1 of figure 4 is the same recess as recess 22 in figures 5D and 5E. Similarly, recess 18-2 of figure 4 is the same recess as recess 24 in figures 5D and 5E.)

8. The original figures 6 and 7 are mislabeled because they show contact region 19-1 in recess 21. As described in the specification, and shown in figures 5D and 5E, LED1 is located in recess 21 and contact region 19-1 is located in recess 22.

9. Therefore, the following objection to the drawings still exist: In figures 6 and 7, the recess where the contact region 19-1 is described is mislabeled 21 instead of 22. As suggested in previous Office Action, the simple correction of changing the 21 in figures 6 and 7 to a 22 would eliminate this problem.

10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

11. The following claims are objected to because of the following informalities:

a. Claims 3 and 4, "the underlying conductive region" lacks antecedent basis.

b. Claim 5, it is unclear if "a second conductive region" is the same "an electrically conductive region of claim 1. It is assumed that these are the same region because the specification only supports one electrically conductive region between the second electrode of the first light emissive structure and the first electrode of the second light emissive structure (see fig. 4).

c. Claims 6 and 7, "the first underlying conductive region" and "said first underlying conductive region" lack antecedent basis. It is assumed that these are the "electrically conductive region" of claim 1.

d. Claim 7, reads "the first underlying conductive region for the first light emissive structure." It is assumed that "the first underlying conductive region" is the "electrically conductive region" of claim 1. However, the "electrically conductive region" of claim 1 is not a part of the "light emissive structure," as described in claim 1. In claim 1, the "electrically conductive region" is described as underlying the light emissive structure, not a part of it.

e. Claim 20, "the organic material" of line 7, lacks antecedent basis.

f. Claim 20, "the organic light emissive layer" of line 13, lacks antecedent basis.

g. Claim 20, "the organic emissive material" of lines 14 and 15, lacks antecedent basis.

h. Claim 20, for the second light emissive structure, "the first electrode layer" and "the organic emissive material" both lack an antecedent basis.

i. Claim 20, "the underlying conductive region" of line 21, lacks antecedent basis.

j. Claim 20, reads "treating an area of the organic light emissive material overlying the second electrode to be electrically conductive." Because the second electrode is described as overlying the light emissive material earlier in the claim, and not vice versa, the above quoted claim limitation will be treated to read ""treating an area of the organic light emissive material underlying the second electrode to be electrically conductive."

k. Claim 21, "the organic material" of line 7, lacks antecedent basis.

l. Claim 21, "the organic light emissive layer" of line 13, lacks antecedent basis.

m. Claim 21, "the organic emissive material" of lines 14 and 15, lacks antecedent basis.

n. Claim 21, the word "is" is missing between the words "electrode" and "electrically" in the second to last line.

o. Claim 21, "the treated area" lacks antecedent basis.

12. The claims are further objected to because of the use of inconsistent claim terminology. Claim 1 states that "the second electrode layer and the electrically conductive region being in electrical connection." Claim 6 reads "the first underlying electrode layer is connected said first underlying conductive region, whereby the light emissive structures are electrically connected in series." Claim 9 states "forming an electrical connection between the second electrode layer and the electrically conductive region." Claims 20 and 21 both read "the second electrode layer overlying the organic light emissive material and the first electrode layer underlying the organic light emissive material are in electrical connection." Claim 20 further reads "electrically connecting the second electrode to the underlying conductive region." And claim 21 further reads "the second electrode is electrically connected to the underlying conductive region."

13. Claims 20 and 21 were originally rejected under both 35 U.S.C. § 112, first and second paragraphs, because as originally disclosed the term "electrically connected" or "electrical connection" in the claims was believed to mean the state described in page 7, lines 15-18, of the specification, whereby cathode 17-1 of LED1 is in electrical contact

with anode 12-1 of LED2 in contact region 19-1. This meaning is consistent with the use of the terms "electrically connected" and "electrical connection" in claims 1-14, 16 and 17, and at the end of claims 20 and 21.

14. However, though Applicant's explanation of the claim term "electrical connection" in the limitation "the second electrode layer overlying the organic light emissive material and the first electrode layer underlying the organic light emissive material are in electrical connection," Applicant has expanded the meaning of the claim terms "electrically connected" and "electrical connection" for purposes of claim interpretation (see Applicant's Remarks, paragraph spanning pages 10 and 11). Both "electrically connected" and "electrical connection" will be interpreted to mean the situation described in the specification, page 7, lines 15-18, and the situation described by Applicant in the Remarks, in the paragraph that begins on page 10 and continues for 8 lines on page 11.

15. It is important to note that electrical connection described in the specification, and believed to exist at contact region 19-1, is a direct electrical connection whereby the two electrically connected members will be at the same potential when the device is driven, so that LED1 and LED2 may be connected in series. While the electrical connection described in the Remarks, in the paragraph on pages 10 and 11, is a diode electrical connection where the two electrically connected members are have different potentials when the device is driven.

16. While Applicant is free to expand the definition of the claim terms "electrically connected" and "electrical connection," all of the claims containing either of these two

phrases are objected to because it is unclear whether the term is intended to mean a direct electrical connection, a diode electrical connection, or simply any type of electrical connection. The Examiner suggests that for each instance, the type of electrical connection intended by the phases "electrically connected" and "electrical connection" is more clearly specified in the claims.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1, 6-8 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Toyota Corp., JP2002-313572 A.

19. **With regard to claim 1,** in figure 2, Toyota discloses an electroluminescent device (1) comprising a substrate (2), a light emissive structure (3a) on the substrate (2), the light emissive structure (3a) comprising organic light emissive material (32a) disposed between first (31a) and second (33a) electrode layers for supplying charge carriers into the organic material (32a) to cause it to emit light, the first (31a) and second (33a) electrode layers respectively underlying and overlying the organic light emissive material (32a), and an electrically conductive region (31b) underlying the light emissive structure (3a) on the substrate (2), the second electrode layer (33a) and the electrically conductive region (32b) being in electrical connection through the thickness of the organic light emissive material (32a) [0011-0014].

20. It is noted that claim limitation, "an electrically conductive region underlying the light emissive structure," is interpreted consistent with the disclosure. Specifically, in at least figure 4, the light emissive structure (12-1/16-1/17-1) and the electrically conductive region (12-2) are disposed on the same level. Therefore, the electrically conductive region (12-2) will be interpreted as "underlying" the light emissive structure (12-1/16-1/17-1) as long as it underlying at least some part of the light emissive structure (12-1/16-1/17-1).

21. **With regard to claim 6**, in figure 2, Toyota discloses a first (3a) and a second (3b) 3 light emissive structure, wherein for the first light emissive structure (3a), the second overlying electrode layer (33a) is connected to the first underlying conductive region (31b), and for the second light emissive structure (3b), the first underlying electrode layer (31b) is connected to said first underlying conductive region (31b), whereby the light emissive structures (3a, 3b) are electrically connected in series [0013].

22. **With regard to claim 7,** in figure 2, Toyota further discloses that a common layer (31b) provides the first underlying conductive region for the first light emissive structure and the first electrode layer of the second light emissive structure.

23. With regard to claim 8, Toyota discloses that the electroluminescent device includes at least one further said light emissive structure connected in series with the first and second light emissive structures [0006, 0007].

24. **With regard to claim 17**, Toyota, in figure 1, further discloses a matrix of said light emissive structures (3) configured on said substrate (2).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

26. Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyota as in view of itself.

27. **With regard to claim 9,** in figure 2, Toyota discloses an electroluminescent device (1) comprising a light emissive structure (3a) on a substrate (2), the light emissive structure comprising organic light emissive material (32a) disposed between first (31a) and second (33a) electrode layers for supplying charge carriers into the organic material (32a) to cause it to emit light, the first (31a) and second (33a) electrode layers respectively underlying and overlying the organic light emissive material (32a), and an electrically conductive region (31b) underlying the light emissive structure (3a) on the substrate (2), and an electrical connection between the second electrode layer (33a) and the electrically conductive region (31b) through the thickness of the organic light emissive material (32a) [0011-0014].

28. Therefore, the structural limitations of claim 9 are the same as those disclosed by Toyota. Toyota does not expressly disclose a method of fabricating the device. However, one of ordinary skill in the art would recognize that manufacturing the claimed device will comprise Applicant's steps of forming the electroluminescent device. Since

only generic method steps and no specific method steps are claimed, the structure disclosed in Toyota anticipates Applicant's recited method step limitations of claim 9.

29. It is noted that claim limitation, "an electrically conductive region underlying the light emissive structure," is interpreted consistent with the disclosure. Specifically, in at least figure 4, the light emissive structure (12-1/16-1/17-1) and the electrically conductive region (12-2) are disposed on the same level. Therefore, the electrically conductive region (12-2) will be interpreted as "underlying" the light emissive structure (12-1/16-1/17-1) as long as it underlying at least some part of the light emissive structure (12-1/16-1/17-1).

30. **With regard to claim 16,** in figure 2, Toyota discloses an electroluminescent device (1) fabricated by a method as claimed in claim 9, comprising a light emissive structure (3a) on a substrate (2), the light emissive structure comprising organic light emissive material (32a) disposed between first (31a) and second (33a) electrode layers for supplying charge carriers into the organic material (32a) to cause it to emit light, the first (31a) and second (33a) electrode layers respectively underlying and overlying the organic light emissive material (32a), and an electrically conductive region (31b) underlying the light emissive structure (3a) on the substrate (2), and an electrical connection between the second overlying electrode layer (33a) and the underlying conductive region (31b) through the thickness of the organic light emissive material (32a) [0011-0014].

31. Claims 2, 4, 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyota as applied to claims 1 and 9 above, and further in view of Nishio et al., U.S. Patent No. 6,046,547.

32. **With regard to claim 2,** Toyota does not expressly disclose a transistor on the substrate having its source drain path connected to the first, underlying electrode for controlling current flowing through the light emissive structure.

33. Nishio, in figure 1B, teaches an electroluminescent device including a transistor (3) on the substrate (1) having its source drain path (3a) connected to the first, underlying electrode (2) for controlling current flowing through the light emissive structure.

34. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Toyota device including a transistor connected to the first underlying electrode, as taught by Nishio, so that the current flowing through the device and the light emitted from the device can be easily controlled.

35. **With regard to claim 4,** Toyota discloses that the underlying conductive region (31b) is electrically connected to the second electrode (33a) through the thickness of the organic light emissive material (32a), but it does not expressly disclose that the electrical connection is made with electrically conductive protuberances formed on the underlying conductive region.

36. Nishio, in figure (1B), teaches an electroluminescent device wherein the underlying conductive region (2) is formed with electrically conductive protuberances (9)

which extend through the thickness of the organic light emissive material (5), and the second electrode (6) is electrically connected to said protuberances (9).

37. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Toyota device where the underlying conductive region was electrically connected to the second electrode by electrically conductive protuberances through the thickness of the organic light emissive material, as taught by Nishio. Electrically conductive protuberances can effectively and reliably electrically connect two electrodes that are on opposing sides of an organic emissive layer.

38. **With regard to claim 5,** Toyota discloses that the underlying conductive region (31b) is electrically connected to the second electrode (33a) through the thickness of the organic light emissive material (32a), but it does not expressly disclose that the organic light emissive material has been damaged in an area thereof overlying the second conductive region, and the second electrode is electrically connected to the underlying conductive region through the damaged area.

39. Nishio, in figure 8B, teaches that the organic light emissive material (405) is formed before the connecting portion (410) is formed (col. 14, lines 57-64). Therefore, Nishio teaches that the organic light emissive material (405) has been damaged (by removal) in an area (410) thereof overlying the underlying conductive region (404), and the second electrode (411) is electrically connected to the underlying conductive region (404) through the damaged area (410).

40. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Toyota device by first forming the organic light emissive

material and then damaging it (by removal) in an area overlying the underlying conductive region, as taught by Nishio, so the second electrode can be electrically connected to the underlying conductive region through the damaged area. Connecting the underlying conductive region and the second electrode by removing part of the organic light emissive material would be efficient and would crate a reliable connection between these two components.

41. **With regard to claim 14,** all of the features of the device of claim 14 are disclosed in the modified device discussed in the rejection of claim 4.

42. However, Toyota and Nishio do not expressly disclose a method of fabricating the modified device.

43. One having ordinary skill in the art would recognize that manufacturing the claimed device will comprise Applicant's steps of forming the modified electroluminescent device. Since only generic method steps and no specific method steps are claimed, the structure disclosed in Toyota meets Applicant's recited method step limitations of claim 14.

44. Therefore, at the time of invention it would have been obvious to one having ordinary skill in the art to construct the modified electroluminescent device disclosed by Toyota and Nishio with the method of claim 14, since the method steps are obvious in the light of the resultant structure.

45. Claims 3, 10, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyota as applied to claim 1 above, in view of Kobayashi, U.S. Patent Application Publication No. 2002/0057051.

46. **With regard to claim 3,** all of the limitations of claim 3 are disclosed by Toyota, including, in figure 2, the second electrode (33a) extends transversely through the thickness of the organic light emissive material (32a) and is electrically connected to the underlying conductive region (31b).

47. Toyota does not expressly disclose that the underlying conductive region has been treated in an area thereof in such a way as to repel the organic light emissive material.

48. Kobayashi, in figures 1a-g, teaches treating (4) an area (3) in such a way as to repel the organic light emissive material (50) [0049-0051].

49. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Toyota device where the underlying conductive region has been treated in an area thereof in such a way as to repel the organic light emissive material, as taught by Kobayashi, and the second electrode extends transversely through the thickness of the organic light emissive material and is electrically connected to the underlying conductive region in said treated area. Using a repellant treatment is well known in the art and would be an effective way to enable a good connection between the underlying conductive region and the second electrode.

50. **With regard to claim 10,** all of the features of the device of claim 10 are disclosed in the modified device discussed in the rejection of claim 3.

51. However, Toyota does not expressly disclose a method of fabricating the modified device.

52. One having ordinary skill in the art would recognize that manufacturing the claimed device will comprise Applicant's steps of forming the modified electroluminescent device. Since only generic method steps and no specific method steps are claimed, the structure disclosed in Toyota meets Applicant's recited method step limitations of claim 10.

53. Therefore, at the time of invention it would have been obvious to one having ordinary skill in the art to construct the modified electroluminescent device disclosed by Toyota with the method of claim 10, since the method steps are obvious in the light of the resultant structure.

54. **With regard to claim 11,** all of the limitations are discussed in the rejection of claim 10, except coating the underlying conductive region with a material that is repellent to the light emissive material.

55. Kobayashi, in figures 1a-g, teaches coating the underlying conductive region (3) with a material (4) that is repellent to the light emissive material (50) [0049-0051].

56. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the modified electroluminescent device including coating the underlying conductive region with a material that is repellent to the light emissive material, as taught by Kobayashi, to assure that the light emissive material is deposited in the desired areas and is not deposited in other areas.

57. **With regard to claim 12,** all of the limitations are discussed in the rejection of claim 11, except selectively removing portions of the repellent coating on the first underlying electrode.

58. Kobayashi, teaches a method for constructing organic electroluminescent devices where layers may be applied and then selectively removed, by etching or some other method, to achieve a desired result [0047]. One of ordinary skill would understand that the repellant coating could be applied and then selectively removed from areas where it is desired that the light emissive material remain.

59. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the modified electroluminescent device including selectively removing portions of the repellent coating on the first underlying electrode, as taught by Kobayashi, to assure that the light emissive material is deposited in the desired areas and is not deposited in other areas.

60. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toyota as applied to claim 9 above, in view of Friend et al., U.S. Patent No. 6,861,799 B1.

61. Toyota discloses all of the limitations of claim 13, except it does not expressly disclose treating regions of the device such as to enhance wetting of the light emissive layer on the first electrode layer.

62. Friend teaches treating regions of an organic electroluminescent device such as to enhance wetting of an organic layer on a conductive layer.

63. At the time of invention, it would have been obvious for a person having ordinary skill in the art to construct the Toyota device including treating regions of the device such as to enhance wetting of the light emissive layer on the first electrode layer, as

taught by Friend, to ensure the light emissive layer is applied to the appropriate areas of the device.

Response to Arguments

64. Applicant argues that the prior art reference Toyota, JP 2002-313572 A, does not disclose the claim limitation "the second electrode and the electrically conductive region being in electrical connection through the thickness of the organic light emissive material." This limitation is contained in at least claims 1 and 9, and the claims dependent from claims 1 and 9. For examination, claim terms are given their broadest reasonable meaning in light of the disclosure (see MPEP 2111). In this case, the claim term "through the thickness of the organic light emissive material" is given the broadest reasonable meaning that can be supported by the disclosure.

65. The disclosure reveals at least two embodiments where "the second electrode and the electrically conductive region being in electrical connection through the thickness of the organic light emissive material." The first embodiment is shown in at least figures 4 and 5E, where the second electrode 17-1 and the electrically conductive region 12-2 are in electrical contact at contact region 19-1 where there **is no** organic light emissive material 16-1 disposed (see Specification, pages 5-10). The second embodiment is shown in at least figures 6 and 7, where the second electrode 17-1 and the electrically conductive region 12-2 are in electrical contact at contact region 19-1 where there **is** organic light emissive material 16-1 disposed (see Specification, page 11). For the purposes of examination, the claim term "through the thickness of the organic light emissive material" is interpreted broad enough to encompass both the

embodiment where organic light emissive material **is** and **is not** disposed at the position where the second electrode is in electrical contact with the electrically conductive region.

66. It is noted that none of the claims specifically state that there is (or is not) organic light emissive material at the position where the second electrode is in electrical contact with the electrically conductive region. It is further noted, that at least claims 10-12, which are dependent on claim 9, imply that the organic light emissive material **is not** disposed at the position where the second electrode is in electrical contact with the with the electrically conductive region. And claims 10-12 contain the limitation "through the thickness of the organic light emissive material" because of their dependence on claim 9.

67. Therefore, the claim term "through the thickness of the organic light emissive material" is interpreted broadly, consistent with the disclosure and claims. For this reason, Applicant's arguments are not found persuasive, because the prior art reference discloses "the second electrode and the electrically conductive region being in electrical connection through the thickness of the organic light emissive material" where the claim terms are given their appropriate breadth.

Conclusion

68. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

69. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

70. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Hollweg whose telephone number is (571) 270-1739. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm E.S.T..

71. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

72. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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